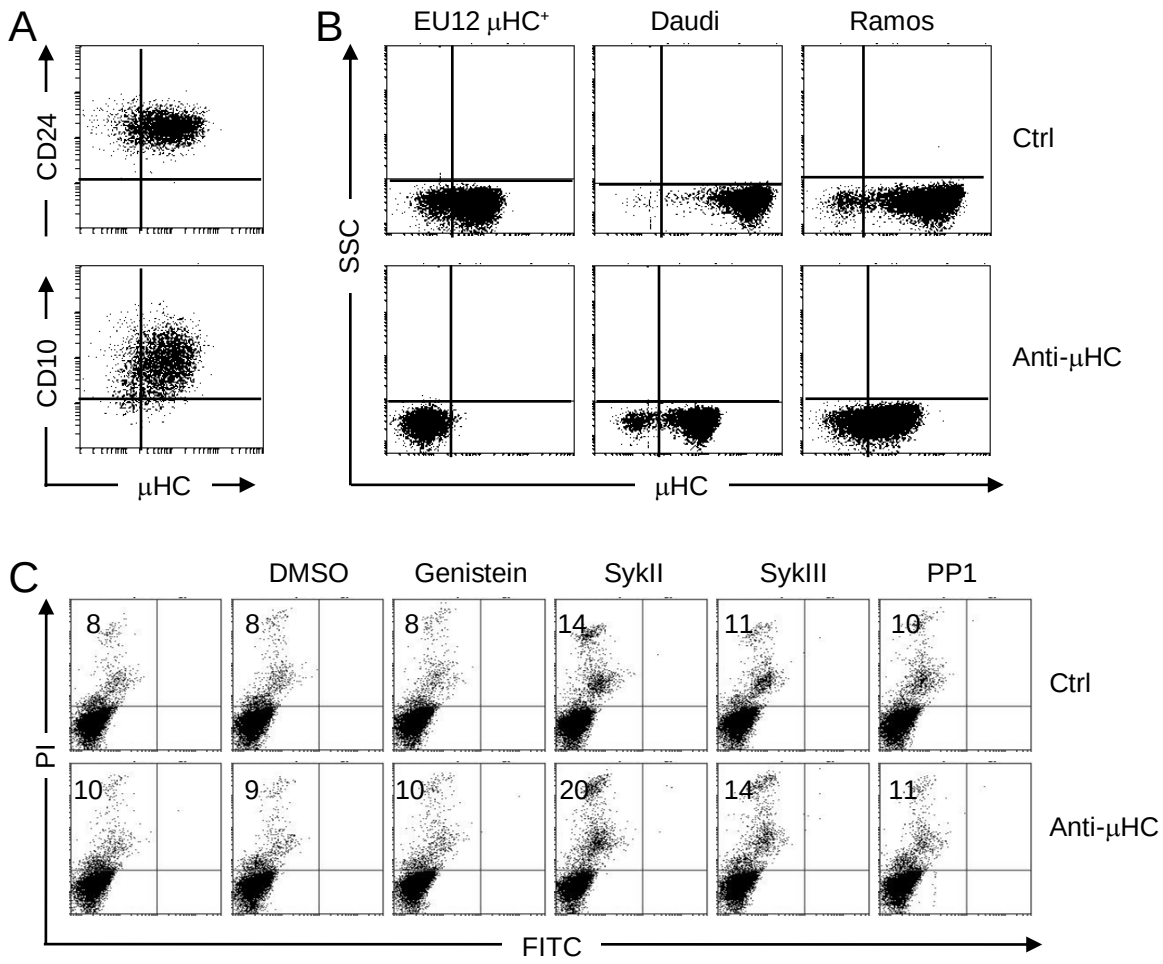
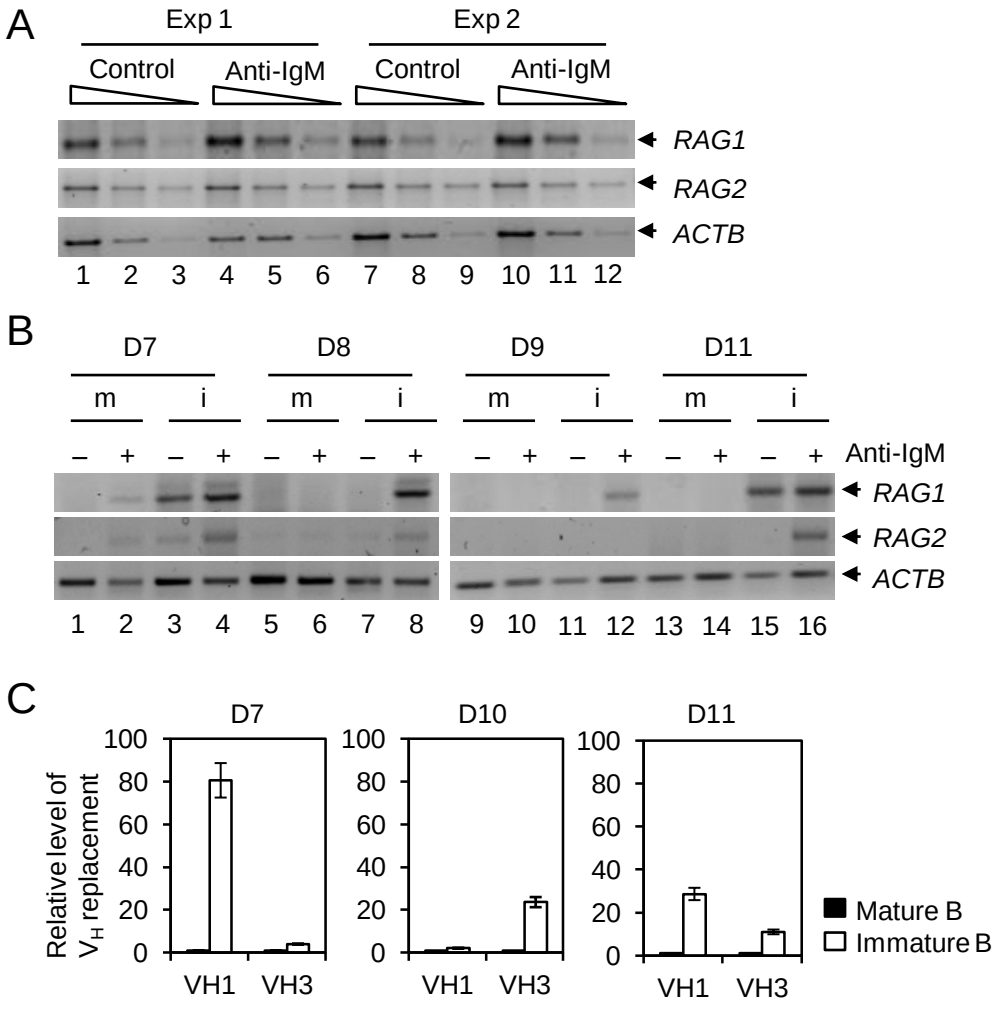


Supplementary Figure 1. Analyses of EU12 μHC$^+$ cells. (A) FACS analysis of EU12 μHC$^+$ cells surface expression of CD10 and CD24. **(B)** Comparison of BCR crosslinking induced BCR internalization in EU12 μHC$^+$, Daudi, and Ramos cells. Cells (10^6) were treated with goat F(ab')$_2$ anti-human μHC antibody fragment (2 μg/ml) for overnight. Cell surface μHC expression was analyzed by FACS. **(C)** FACS analysis of cell viability after different treatment. EU12 μH$^+$ cells were cultured with or without F(ab')$_2$ goat anti-human μHC antibody fragments (2 μg/ml) in the presence or absence of DMSO, Genistein (1 μM), Syk kinase Inhibitor SykII (1 μM) or SykIII (1 μM), or Src kinase inhibitor PP1 (1 μM). Cell viability was monitored by FACS analysis following PI staining and displayed as dot plot of PI versus FITC (unstained). Numbers indicate percentage of dead cells that were positively stained with PI.



Supplemental Figure 2. Expression of *RAG1* and *RAG2* gene and induction of V_H replacement in human immature B cells. **(A)** RT-PCR analyses of *RAG1*, *RAG2,* and *ACTB* gene expression in EU12 μHC$^+$ cells with or without anti-IgM antibody treatment. Results shown are two independent experiments. Serial diluted (1:5) cDNA samples were used as template for PCR reaction. **(B)** RT-PCR analysis of *RAG1*, *RAG2*, and *ACTB* gene expression in primary immature (i) or mature naïve (m) B cells from healthy donors (D7, D8, D9, and D10) with or without anti-IgM antibody treatment. **(C)** Real-time LM-PCR detection of the DSBs at the V_{H1} and V_{H3} cRSS sites in purified human peripheral immature B cells versus mature B cells (Donors 7, 10, and 11). Results shown are relative fold enrichment of the LM-PCR signal in the immature B cells above that in the mature B cells (The of LM-PCR signal in the mature B cells was set as 1). *Error bars* indicated standard deviation from triplicated experiments.